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BEFORE THE FEDERAL COMMUNICATIONS COMMISSION, Washington, D.C. 20554

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In the Matter of)	
Amendment of Section 2.106 of the)	ET Docket No. 95-18
Commission's Rules to Allocate)	RM-7927
Spectrum at 2 GHz for Use)	e g
By The Mobile-Satellite Service)	DOCKET FILE COPY ORIGINAL

COMMENTS

Constellation Communications, Inc. ("Constellation"), by its attorneys, files these Comments in response to the Commission's <u>Second Notice of Inquiry</u> ("<u>Notice</u>") in this proceeding proposing to allocate the 1990-2025 MHz (Earth-to-space) and 2165-2200 MHz (space-to-Earth) bands to the mobile-satellite service ("MSS").

Constellation is an applicant for a low-Earth orbit ("LEO") satellite system in the 1610-1626.5 MHz and 2483.5-2500 MHz bands.² This LEO MSS technology will provide important new services to the public and will stimulate technological and economic development both in this country and on a global basis.³ Constellation believes that the proposed 2 GHz MSS allocations are necessary for the expansion of the initial 1.6/2.4 GHz LEO MSS systems and for the development of additional satellite-based personal communications services in the future.

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¹ FCC 95-36, released January 31, 1995.

² <u>See</u> application File Nos. 17-DSS-P-91(48) and CSS-91-013, as amended on November 16, 1994.

³ <u>See e.g.</u>, Constellation Comments in CC Docket No. 92-166 filed on May 5, 1994, at 5-12; <u>Report and Order in CC Docket No. 92-166</u>, FCC 94-261 released October 14, 1994, at paras. 3-5.

The proposals advanced by the Commission in the <u>Notice</u> will further these objectives, and Constellation supports the proposed modifications to Section 2.106 of the Commission Rules. However, the Notice also discusses a number of other matters which Constellation believes are premature and should be deferred to a later date.

In this proceeding, the Commission proposing to allocate 35 MHz of spectrum to MSS in each direction of transmission. However, the Commission is also proposing to allocate 40 MHz of MSS spectrum in each direction on a worldwide basis in its preparations for the 1995 World Radiocommunication Conference ("WRC").⁴ The additional 5 MHz of MSS spectrum being proposed to WRC-95 will significantly affect any United States MSS satellite design even if the band could not be used in this country.⁵ Moreover, implementation of the 2010-2025 MHz uplink portion of this proposal will require favorable action at WRC-95 since the band is not currently allocated to MSS in the international Table of Frequency Allocations.⁶ Thus, any further rulemaking to establish licensing policies and procedures should be deferred until the final international status of these bands is determined at WRC-95.

Because LEO MSS systems inherently operate on a global basis, this technology can

⁴ <u>See</u> Second Notice of Inquiry in IC Docket No. 94-31, FCC 95-36 released January 31,1995, Proposal No. 3/B-LEO at 12-14. If adopted at WRC-95, the worldwide uplink would be at 1985-2025 MHz and the worldwide downlink would be at 2160-2200 MHz.

⁵ The 5 MHz of additional uplink MSS spectrum is at 1985-1990 MHz which is allocated to personal communications services in GEN Docket No. 90-314.

⁶ Another released issue is the implementation date for these bands, which is currently set at January 1, 2005 outside the United States by international RR No. 746B. The availability of these bands outside the United States is a critical factor in the use of these bands by LEO MSS systems designed to provide global services.

be implemented only in bands that have worldwide allocations. On the other hand, MSS systems using the geostationary satellite orbit ("GSO") are inherently national or regional since the satellites are fixed in relation to their geographic coverage area. There are other bands already allocated between 1 and 3 GHz which are being used or can be used by GSO MSS systems. Since the 2 GHz MSS bands are the only new MSS bands between 1 and 3 GHz that are allocated on a world-wide basis and can be implemented in the United States as a practical matter, Constellation believes that the 2 GHz MSS bands should be reserved for global MSS systems using LEO technology.

Constellation also believes that the Commission should conduct more extensive technical studies to determine the feasibility of sharing in these bands, particularly with respect to CDMA systems which typically have low uplink EIRP densities and can operate at power flux density levels compatible with terrestrial services. In additional, technical studies should be conducted to insure that the most spectrum efficient transmission techniques are being used in any terrestrial services subject to relocation. For example, is 17 MHz really needed to transmit a television signal over a short distance by SNG using current digital transmission and compression techniques? Also, additional technical studies should be undertaken of the terrestrial channelization plans to minimize any cost of

⁷ Existing allocations include 1492-1525 MHz, 1525-1559 MHz, 1626.5-1660.5 MHz, 1675-1710 MHz, 2500-2520 MHz and 2670-2790 MHz. While some of these bands may not be usable in the United States, there are enough options to provide growth for national and regional GSO MSS systems. In particular, if additional GSO MSS spectrum is needed in the United States, consideration should be given to upgrading the secondary Region 2 downlink MSS allocation at 2120-2160 MHz to a primary footnote allocation that can be matched with the primary Region 2 uplink MSS allocation at 1675-1710 MHz.

relocation.⁸ Constellation believes that it is critical to the development of cost effective MSS service to minimize the relocation costs of introducing MSS in these bands.

Finally, Constellation believes that it is premature for the Commission to announce that it will use auction procedures to license MSS systems in these bands. The parameters of the licensing rules have not yet been established. Nor has the Commission developed the record necessary for it to conclude that mutual exclusivity in fact exists in these bands and then make the necessary findings required by statute before it can implement an auction procedure to resolve any such mutual exclusivity.⁹

In summary, Constellation supports the Commission's proposals to allocate additional spectrum to the MSS. However, Constellation also believes that the results of WRC-95 must be known and additional technical studies are needed before the Commission can implement MSS in these bands in the most economical manner given the current utilization of the bands. Moreover, to the extent that the bands are to be used for non-GSO MSS

⁸ For example, to accommodate the MSS uplink band, the Commission is proposing MSS operators to relocate the entire common carrier fixed band at 2110-2130 MHz, but only the 2165-2180 MHz portion of the corresponding 2160-2180 MHz band is affected by the MSS downlink under the allocation being proposed in the Notice.

⁹ Although the Commission did address arguments concerning the applicability of auctions to LEO MSS licensing in its CC Docket No. 92-166 proceeding, its conclusions have not been tested on reconsideration or judicial review, and the factual differences between the 1.6/2.4 GHz MSS bands and the 2 GHz bands will require the Commission to make an independent review before implementing any auctions in the 2 GHz MSS bands.

systems providing global service, an auction approach is not consistent with the Commission's statutory authority.

Respectfully submitted,

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May 5, 1995

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CERTIFICATE OF SERVICE

I, Robert A. Mazer, hereby certify that the foregoing "Comments" of Constellation Communications, Inc., was served by hand or first-class mail, postage prepaid, this 5th day of May, 1995, on the following persons:

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